

BEFORE

THE PUBLIC SERVICE COMMISSION

OF

SOUTH CAROLINA

DOCKET NO. 2017-221-E - ORDER NO. 2017-__

OCTOBER __, 2017

IN RE:

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| Application of South Carolina Electric & Gas Company for a Certificate of Environmental Compatibility and Public Convenience and Necessity for the Construction and Operation of the Graniteville-South Augusta 230 kV Tie Line and Urquhart-Graniteville #2 230 kV Tie Line and Associated Facilities. |))))))) | JOINT PROPOSED ORDER GRANTING A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC CONVENIENCE AND NECESSITY |
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I. INTRODUCTION

This matter comes before the Public Service Commission of South Carolina (the “Commission”) on the Application of South Carolina Electric & Gas Company (“SCE&G” or the “Company”) for a Certificate of Environmental Compatibility and Public Convenience and Necessity (“Certificate”) for the construction and operation of two (2) 230 kilovolt (“kV”) transmission lines—the Graniteville #2 – South Augusta 230 kV Tie Line and the Urquhart – Graniteville 230 kV Line (the “Proposed Lines”)—and associated facilities in Aiken County.¹

¹ The Company’s Application sought a Certificate for the construction and operation of the Graniteville – South Augusta 230 kV Tie Line and the Urquhart – Graniteville #2 230 kV Line. Subsequent to the filing of the Application, the Company conducted an onsite constructability review and determined that terminating the proposed Graniteville – South Augusta 230 kV Tie Line in the Graniteville Substation No. 2, rather than the Graniteville Substation No. 1 as proposed in the Application, and terminating the proposed the Urquhart – Graniteville #2 230 kV Line in the Graniteville Substation No. 1, rather than the Graniteville Substation No. 2 as proposed in the Application, would facilitate installation of the new lines, eliminate a 230 kV crossing near the Urquhart Generating Station, and reduce costs associated with the construction of the lines. Therefore, as Witness Richards testified, the Company has modified its request such that it now seeks a Certificate for the construction and operation of the Graniteville #2 – South Augusta 230 kV Tie Line and the Urquhart – Graniteville 230 kV Line and associated facilities.

SCE&G filed this application (the “Application”) on July 5, 2017, and contemporaneously served it on the South Carolina Office of Regulatory Staff (“ORS”) and the heads of each state and local governmental agency charged with the duty of protecting the environment or of planning land use in the area in the counties in which any portion of the facility will be located. At the request of the Company, the Commission established this docket pursuant to the provisions in S.C. Code Ann. § 58-33-10 et seq. (2015) (the “Siting Act”) and 10 S.C. Code Ann. Regs. 103-304 (2012).

A Notice of Filing and Hearing and Prefile Testimony Deadlines (“Notice”) regarding the Application was prepared and issued by the Clerk’s Office of the Commission (the “Clerk’s Office”). By letter dated July 7, 2017, the Clerk’s Office instructed SCE&G to publish the Notice in newspapers of general circulation in the affected areas one time on or before July 17, 2017, and to provide proof of such publication to the Commission by August 7, 2017. On July 10, 2017, the Clerk’s Office issued a revised Notice (“Revised Notice”). The Company complied with the instructions received from the Clerk’s Office on July 7, 2017, by timely publishing the Revised Notice and thereafter filing an affidavit of publication attesting to publication as directed by the Clerk’s Office.

The Revised Notice established August 7, 2017, as the date by which interested parties or entities could timely file petitions to intervene or present their views in writing to the Commission. No petitions to intervene were filed with the Commission.

ORS is automatically a party to the certification proceeding in this Docket pursuant to S.C. Code Ann. §§ 58-4-10(B) (2015) and 58-33-140(1)(b) (2015). The South Carolina Department of Health and Environmental Control (“SCDHEC”), the South Carolina Department of Natural Resources (“SCDNR”), and the South Carolina Department of Parks, Recreation and Tourism (“SCPRT”) are also automatically parties to the certification proceeding in this Docket based on

the provisions of S.C. Code Ann. § 58-33-140. By letter dated July 27, 2017, the SCDNR informed the Commission that it “d[id] not have any objections to these projects” provided certain concerns were adequately addressed and certain recommendations were followed. By letter dated August 22, 2017, the SCPRT informed ORS that it had “no comments or concerns pertinent to the subject project” By letter dated September 1, 2017, SCDHEC informed the Commission that it “d[id] not have comments at this time” but that it “d[id] not waive any comments, concerns, or issues it may have in future proceedings before the [Commission] or when reviewing any relevant applications for DHEC permits or other approvals.”

On September 15, 2017, ORS and SCE&G filed a Stipulation in this matter.

The Commission convened a formal hearing in this matter on September 27, 2017, with the Honorable Swain Whitfield, Chairman, presiding. SCE&G was represented by K. Chad Burgess, Esquire, Matthew W. Gissendanner, Esquire, and Sara C. Weinberg, Esquire. ORS was represented by Jeffrey M. Nelson, Esquire. Counsel for the other parties of record did not enter an appearance at the hearing. The Commission heard testimony from the witnesses for SCE&G and ORS. Through their personal appearances, SCE&G presented the testimonies of Joseph Wade Richards, Senior Engineer in Transmission Planning for SCE&G, and Nathan V. Bass, PLA, Manager of the Facilities Planning and Siting Division of UC Synergetic, LLC, a subsidiary of Pike Corporation. ORS presented the direct testimony of Michael L. Seaman-Huynh, Senior Regulatory Manager in ORS’s Utility Rates and Services Division. The testimonies and exhibits of the SCE&G witnesses and the ORS witness were entered into the record of the case without objection. Each SCE&G and ORS witness presented summaries of their testimony and then were made available to respond to questions from the Commission.

At the opening of the hearing, Mr. Nelson informed the Commission of the Stipulation between ORS and SCE&G. The Stipulation primarily set forth that:

1. ORS will recommend that the Commission approve SCE&G's Application, as modified in SCE&G's direct testimony, and grant SCE&G a Certificate for the Graniteville #2 – South Augusta 230 kV Tie Line and the Urquhart – Graniteville 230 kV Line and associated facilities;
2. SCE&G agrees to follow all South Carolina, Commission, and local government regulations and laws arising from matters set forth in the Application; and
3. SCE&G will notify ORS and the Commission when the facilities begin commercial operation and of any changes to the planned commercial operation dates.

For the reasons set forth below, the Commission grants the relief requested by SCE&G in the Application.

II. STATUTORY STANDARDS

The Siting Act requires that before constructing and operating new electric transmission lines and associated facilities with a designed operating voltage in excess of 125 kV the owner must obtain a Certificate from the Commission. In issuing such a Certificate, the Commission is required to make six statutorily-mandated findings. Those findings concern:

1. The basis of the need for the facility. S.C. Code Ann. § 58-33-160(1)(a);
2. The nature of the probable environmental impact of the facility. S.C. Code Ann. § 58-33-160(1)(b);

3. That the impact of the facility upon the environment is justified, considering the state of available technology and the nature and economics of the various alternatives and other pertinent considerations. S.C. Code Ann. § 58-33-160(1)(c);
4. That the facilities will serve the interests of system economy and reliability. S.C. Code Ann. § 58-33-160(1)(d);
5. That there is reasonable assurance that the proposed facility will conform to applicable state and local laws and regulations issued thereunder, including any allowable variance provisions therein, except that the Commission may refuse to apply any local law or local regulation that is unreasonably restrictive. S.C. Code Ann. § 58-33-160(1)(e); and
6. That public convenience and necessity require the construction of the facility. S.C. Code Ann. § 58-33-160(1)(f).

The Commission has considered each of these statutory standards in light of the evidence on the record in this proceeding. On that basis, the Commission makes findings as set forth below:

III. FACTS AND LEGAL DETERMINATIONS

A. The Need for the Facilities, System Economy and Reliability, and Public Convenience and Necessity

The Company adheres to the North American Electric Reliability Corporation (“NERC”) Transmission Planning Standards, as well as its own Long Term Planning Criteria, in determining the need for new transmission facilities. According to Company witness Richards, the SCE&G Transmission System is designed in accordance with these standards and criteria so that nothing more serious than local load impacts will occur during certain contingencies and so that after

appropriate switching and re-dispatching, all non-radial loads can be served with reasonable voltages, and all facilities can again operate within acceptable operating limits. A sample of contingencies considered includes:

1. Loss of any generator;
2. Loss of any transmission circuit operating at a voltage level of 115 kV or above;
3. Loss of any transmission transformer;
4. Loss of any electrical bus and associated facilities operating at a voltage level of 115 kV or above;
5. Loss of all 115 kV or above circuits on a common structure;
6. Loss of entire generating capacity in any one generating plant;
7. Loss of any generating unit simultaneously with the loss of a single transmission line;
8. Loss of all components associated with a transmission circuit breaker failure; and
9. Loss of any generator, transmission circuit, or transmission transformer, followed by manual system adjustments, followed by the loss of another generator, transmission circuit, or transmission transformer.

As indicated in the Application and in the testimony of witness Richards, SCE&G's Transmission Planning studies indicate that the occurrence of certain contingencies will result in heavy electrical loading on the existing Vogtle-Savannah River Site 230 kV Tie Line, a critical Southern Company-SCE&G interconnecting 230 kV Line, as early as 2019. Witness Richards further testified that, to prevent future excessive loading conditions on this line and to distribute the flow of power more reliably and evenly into the SCE&G system, additional electrical transmission paths are needed and necessary between Southern Company and SCE&G.

Witness Richards testified that the Company and Southern Company jointly considered four (4) other alternatives to the present proposal to decrease power flow on the Vogtle-Savannah

River Site 230 kV Tie Line but that such alternatives were not feasible due to time constraints, produced unacceptable stability issues at Plant Vogtle during line outage conditions, or caused other transmission facilities to overload for certain contingencies.

Having considered the various alternatives, SCE&G and Southern Company agreed to establish two (2) new Southern Company/SCE&G interconnecting tie lines—the Graniteville #2 – South Augusta 230 kV Tie Line and the Graniteville #2 – South Augusta 115 kV Tie Line—which will cross the Savannah River and enter South Carolina at SCE&G's Urquhart Generating Station site. In addition to decreasing the power flow on the existing Vogtle-Savannah River Site 230 kV Tie Line and more reliably and evenly distributing the flow of power into the SCE&G system, the new tie lines will increase the transfer capacity for all utilities interconnected to SCE&G's electrical transmission system.

At the hearing in this matter, SCE&G witness Richards testified that the proposed Graniteville #2 – South Augusta 230 kV Tie Line—would run from Southern Company's South Augusta Substation to SCE&G's Graniteville Substation No. 2 in Aiken County along existing rights-of-way (with the exception of an approximately 0.46-mile segment on the Urquhart Generating Station Site for which SCE&G will dedicate a new 100 feet wide right-of-way) and that the portion of this line to be owned and operated by SCE&G and for which a Certificate was requested in the Application would be approximately 18.1 miles measured from the first transmission line structure on the South Carolina side of the Savannah River to the Graniteville Substation No. 2.

With respect to the second new line—the Urquhart – Graniteville 230 kV Line—witness Richards testified that it would run for approximately 17.6 miles along existing right-of-way from the Company's Urquhart Substation in Aiken County to the Company's Graniteville Substation

No. 1 in Aiken County. The associated facilities to be added to SCE&G's transmission system, i.e., the 230 kV line terminal and the 230 kV power circuit breaker at the Graniteville Substation No. 1, will accommodate the Urquhart – Graniteville 230 kV Line.

Witness Richards further testified that the proposed Urquhart – Graniteville 230 kV Line will serve as a replacement for the existing Urquhart – Graniteville #2 230 kV Line, which is one of two transmission lines that service the Urquhart Generating Station's two (2) 230 kV generators. The existing 230 kV Line will be operated at 115 kV and will become a portion of the Graniteville #2 – South Augusta 115 kV Tie Line. Replacing the existing Urquhart – Graniteville #2 230 kV Line with the proposed Urquhart – Graniteville 230 kV Line on double-circuit 230 kV structures alongside the Graniteville #2 – South Augusta 230 kV Tie Line will maintain the current operating flexibility and level of reliability required for the Urquhart generators.

Witness Richards concluded that the Proposed Lines and associated facilities are critical to the operational integrity of SCE&G's electrical transmission system, are necessary to ensure that the Company's system remains in compliance with NERC standards and its own Long Term Planning Criteria, and represent the most cost-effective proposal in light of system needs and constraints and the best long-term solution for the continued transmission of safe, reliable electric power to SCE&G's customers.

The ORS's witness Seaman-Huynh testified that the Proposed Lines and associated facilities will result in minimal impact to the environment and will serve the interests of system economy and reliability. Further, that the Proposed Lines and associated facilities will support the Company in providing reliable electric service to its customers in the Company's Southwest service territory. Witness Seaman-Huynh supported witness Richards's conclusion that the Proposed Lines and associated facilities under review here serve the interests of system economy

and reliability and are supported by public convenience and necessity.

The Commission finds witness Richards's testimony concerning the basis for the need for the Proposed Lines and the associated facilities, and the contribution to system economy and reliability they represent, as corroborated by witness Seaman-Huynh, to be credible. This evidence supports a finding by the Commission that the Proposed Lines and the associated facilities are needed, that they serve the interests of system economy and reliability, and that they are required by public convenience and necessity. Accordingly, the Commission finds that as to the Proposed Lines and associated facilities, the statutory standards of S.C. Code Ann. §§ 58-33-160(1)(a),(d), and (f) are fully met by the evidence of record here.

B. The Nature and Justification of the Probable Environmental Impact of the Proposed Lines and the associated facilities

The Siting Act also requires the Commission to evaluate the nature of the probable environmental impact from the Proposed Lines and the associated facilities and to determine whether the impact upon the environment is justified, considering the state of available technology and the nature and economics of the various alternatives and other pertinent considerations.

An important fact about the Proposed Lines is that SCE&G plans to construct them almost entirely within existing rights-of-way, except for a 0.92-mile segment that will reside in new right-of-way on the Urquhart Generating Station site. There is substantial evidence in the record amply supporting the environmental benefits of SCE&G's decision to build the Proposed Lines primarily on existing rights-of-way. As Company witness Bass testified, use of existing rights-of-way for the majority of the Proposed Lines minimizes the amount of environmental, land use, cultural resource and aesthetic effects from the Proposed Lines.

This conclusion is substantiated by the Transmission Line Siting and Environmental Report for the Graniteville #2 – South Augusta 230 kV Tie Line and Urquhart – Graniteville 230 kV Line and Associated Facilities, which witness Bass presented as an exhibit to his testimony (“Environmental Report”). (Hearing Exhibit No. 3 (NVB-1).) This Environmental Report was based on literature and record reviews and extensive field-work by biologists, botanists, cultural resource historians and others to ascertain the probable environmental impact of constructing and operating the Proposed Lines and the associated facilities along the selected routes. As detailed in the Environmental Report, biologists and botanists conducted field studies to ascertain whether the construction and operation of the Proposed Lines and the associated facilities were likely to have any adverse impact on any state or federally-listed rare, threatened or endangered plant or animal species. They determined that such species were not likely to be adversely affected by the Proposed Lines or the associated facilities.

These facts were set forth in witness Bass’s testimony and the various studies that form part of the Environmental Report prepared for the Proposed Lines and the associated facilities. Based on these facts, witness Bass testified that the construction and operation of the Proposed Lines and the associated facilities would not have any significant short- or long-term impacts on the environment.

As to cultural resources, witness Bass testified that SCE&G engaged Brockington and Associates, Inc. in March 2014 to conduct background research to identify all previously recorded archaeological and historic resources within 1.25 miles of the existing right-of-way within which the Proposed Lines will be located and to conduct a “windshield reconnaissance survey” to identify any previously unrecorded architectural, multi-property and/or district architectural resources

within 1.25 miles of the existing right-of-way that appear potentially eligible for listing on the National Register of Historic Places (“NRHP”).

After completing the background research, Brockington conducted a Phase I archaeological investigation in the existing right-of-way within which the Proposed Lines are to be located. Based on the Phase I archaeological investigations, Brockington concluded that the project will have no adverse effects on archaeological resources in the existing right-of-way between Urquhart 230 kV Substation and Graniteville Substations No. 1 and No. 2 and submitted the findings to the South Carolina State Historic Preservation Office (“SHPO”). The SHPO concurred with Brockington’s findings and recommendations.

Subsequent to the 2014 Phase I archaeological investigation, SCE&G determined it would be necessary to place the Graniteville #2 – South Augusta 230 kV Tie Line on a combination of existing and new right-of-way that bypasses the Urquhart Generating Station and Urquhart 230 kV Substation. In February 2017, SCE&G engaged Brockington to conduct a Phase I archaeological investigation within the proposed 0.92-mile segment of right-of-way that will reside entirely on the Urquhart Generating Station site and bypass the generating station on its north side before connecting to the existing SCE&G right-of-way previously investigated by Brockington in 2014. After conducting comprehensive shovel test excavations throughout the proposed 0.92-mile segment, Brockington concluded that no cultural materials are present in the 100-foot-wide, 0.92-mile corridor, and construction of the proposed Graniteville #2 – South Augusta 230/115 kV Tie Lines therefore will have no adverse effects on archaeological resources. Brockington reported the findings of this investigation to the SHPO as an addendum report to the one previously filed for the project in 2014, and the SHPO accepted it as final.

With regard to visual impacts, witness Bass testified that the Proposed Lines will have very low overall visual effects for several reasons—the main reason being that the Proposed Lines will largely be built within existing SCE&G right-of-way and on the Urquhart Generating Station site and will replace an existing 115 kV line that is located on wooden H-frame structures. The Proposed Lines will share existing SCE&G right-of-way with multiple other existing SCE&G transmission lines for approximately 17.2 miles of their total 18.1-mile length. Moreover, significant portions of the Proposed Lines will traverse undeveloped areas where existing trees that reside on each side of the right-of-way provide significant screening.

In his testimony, witness Bass concluded that the impact of the Proposed Lines and the associated facilities upon the environment was justified considering the state of available technology and the nature and economics of the various alternatives. In reaching this conclusion, witness Bass noted that witness Richards testified that SCE&G had considered several alternatives to the Proposed Lines and associated facilities and determined that the proposed facilities were superior solutions for providing SCE&G's customers with long-term electric system reliability. Witness Bass also testified that any resulting environmental impacts were minimized by the Company's decision to construct the Proposed Lines primarily on existing rights-of-way.

The ORS's witness in this matter, witness Seaman-Huynh testified that the ORS had reviewed the Environmental Report and conducted discussions with SCDHEC and SCDNR regarding the Proposed Lines and associated facilities, and that, based on its review of the Environmental Report and its discussions with the other statutory parties, ORS concluded that the Environmental Report adequately addressed the environmental impacts of the Proposed Lines.

The Commission finds that the evidence SCE&G and ORS presented through their witnesses Bass, Richards, and Seaman-Huynh as to these matters is credible and persuasive. Based

on the evidence of record, the Commission finds that the environmental impacts of the Proposed Lines and associated facilities have been appropriately evaluated, described and are not significant. These impacts are justified considering the state of available technology and the nature and economics of the various alternatives to the proposed siting of the Proposed Lines and the associated facilities. Accordingly, the Commission finds that as to the Proposed Lines and associated facilities, the statutory standards of S.C. Code Ann. §§ 58-33-160(1)(b) and (c) are fully met by the evidence of record here.

**C. Assurance that the Proposed Facilities Will Conform to
Applicable State and Local Laws and Regulations**

The Siting Act requires the Commission to determine whether there is reasonable assurance that the proposed facilities will conform to applicable state and local laws and regulations issued thereunder. S.C. Code Ann. § 58-33-160(1)(e). Witness Richards testified unequivocally that the Proposed Lines and associated facilities will be constructed and operated in conformity with all applicable state and local regulations.

**D. Conclusion as to the Public Convenience and Necessity of the
Proposed Lines and the Associated Facilities**

In conclusion, the Proposed Lines and associated facilities represent a feasible, appropriate and cost-effective means for maintaining system reliability and providing safe, reliable electric service to SCE&G's customers. For the reasons outlined herein, the Commission finds that the public convenience and necessity supports issuance of a Certificate for the construction and operation of the Proposed Lines and the associated facilities as proposed. S.C. Code Ann. § 58-33-160(1)(f).

IV. FINDINGS

NOW THEREFORE, based upon the foregoing, IT IS HEREBY DECLARED AND ORDERED THAT:

1. SCE&G is hereby granted a Certificate of Environmental Compatibility and Public Convenience and Necessity for the construction and operation of two (2) 230 kV transmission lines—the Graniteville #2 – South Augusta 230 kV Tie Line and the Urquhart – Graniteville 230 kV Line—and associated facilities in Aiken County, along the route described in the testimony of witness Richards.
2. SCE&G has shown the basis of the need for the Proposed Lines in that construction of the Proposed Lines is necessary to prevent heavy electrical loading on a critical Southern Company-SCE&G interconnecting 230 kV Line, as early as 2019, upon the occurrence of certain contingencies and to ensure that SCE&G remains in compliance with applicable transmission system reliability standards and maintains the current operating flexibility and level of reliability required for the Urquhart generators.
3. SCE&G has shown the nature of the probable environmental impact from construction and operation of the Proposed Lines and the associated facilities is not significant. Considering the state of available technology and the nature and economics of the various alternatives and other pertinent considerations, this impact is justified. By constructing the Proposed Lines primarily within existing rights-of-way, SCE&G has selected the route for these Proposed Lines and

associated facilities in a way that appropriately minimizes environmental, land use, cultural resource, and aesthetic effects.

4. SCE&G has shown the Proposed Lines and associated facilities will serve the interests of system economy and reliability.
5. SCE&G will follow all applicable South Carolina, Commission, and local government regulations and laws arising from matters set forth in the Application.
6. Public convenience and necessity require the construction of the Proposed Lines and the associated facilities.
7. This Order shall remain in full force and effect until further order of the Commission.

BY ORDER OF THE COMMISSION:

Swain E. Whitfield, Chairman

ATTEST:

Comer H. ("Randy") Randall, Vice Chairman

(SEAL)